

Sustainable + Trust

Green Extraction + Purification Technology for Natural and Synthetic Medicines

October 2021

Where We Came From

Extraction, purification, and formulation is engrained in Thar's successful DNA

- Extraction (**exit**)
 - Suprex (incorporated in 1982) sold to Isco
 - Purification (**exit**)
 - Thar Instruments sold to Waters Corporation
 - Formulation (**exit**)
 - Thar Pharmaceuticals sold to Grunenthal
- * Also spun off Criticality off of Thar Process to sell to Pyxus / Alliance One Tobacco

Extraction & Purification DNA

Dr. Lalit Chordia



Founder & Chief Executive Officer

- Co-Founded Suprex Corp.
- Founder of Thar Technologies, Thar Instruments, Thar Pharmaceuticals, and Thar Process

Todd Palcic



President & Chief Revenue Officer

- Co-Founded Thar Instruments, Penn Worldwide, Neolitics, and Green Chemistry Group

Jim Waters



Director

- Father of Preparative Chromatography
- Founded Waters Corporation in 1958, a US\$15B publicly traded company today with 6,900+ employees

Two Robust Revenue Streams

TOLL PROCESSING



Thar operates a toll processing / contract R&D facility in Pittsburgh, USA. **Thar** is open to strategic partnerships in other regions.

MANUFACTURING



Thar designs, manufactures and sells advanced CO₂ extraction and purification systems ranging from pilot to commercial-scale

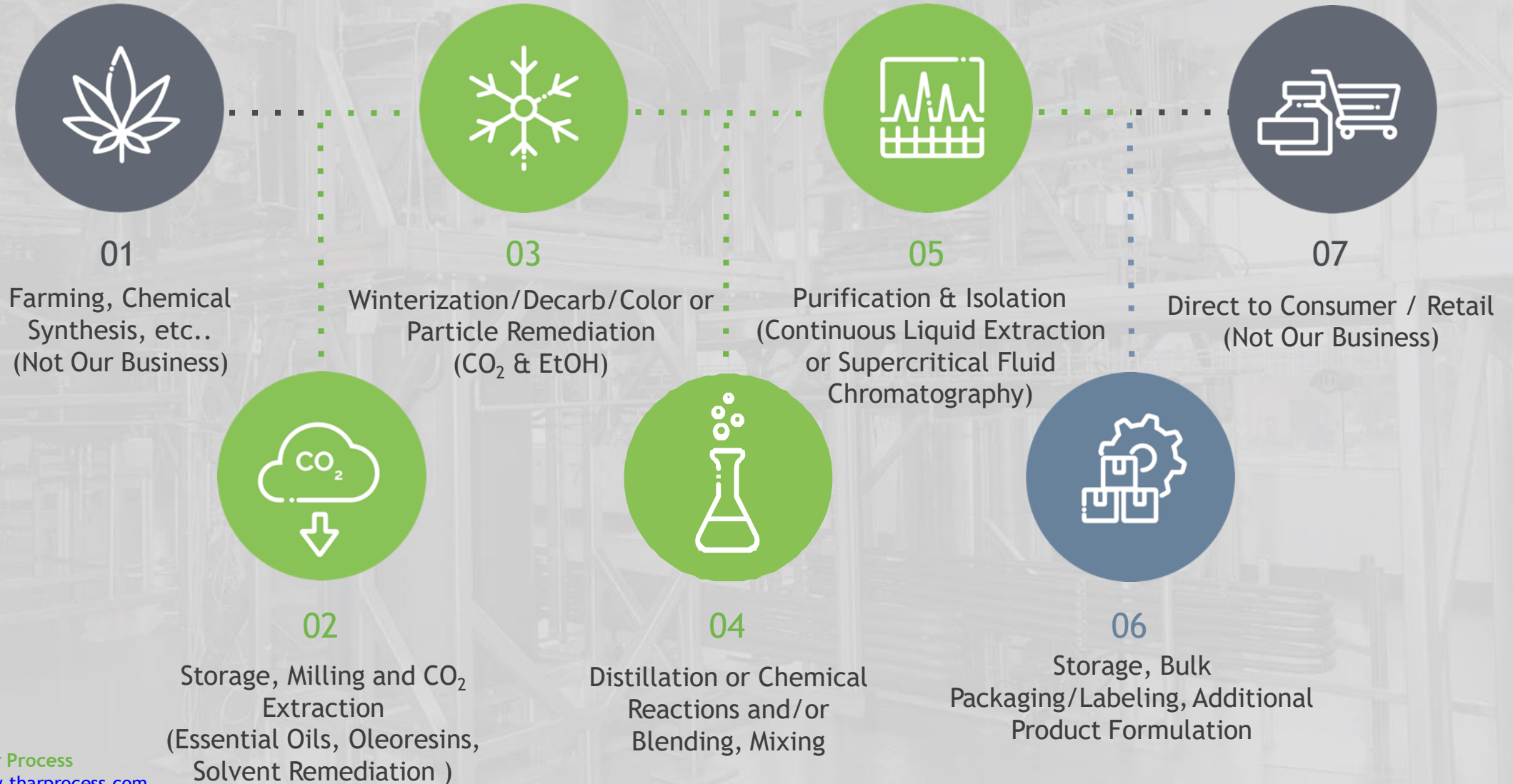
20% of revenue in 2020 was contributed by toll processing/services

Thar's Extraction Facility in Pittsburgh



Thar's Pittsburgh facility can process up to 4 metric tonnes of biomass per day.

Fully Integrated Natural Product Tolling Operations: That Provides Critical Links in the Value Chain



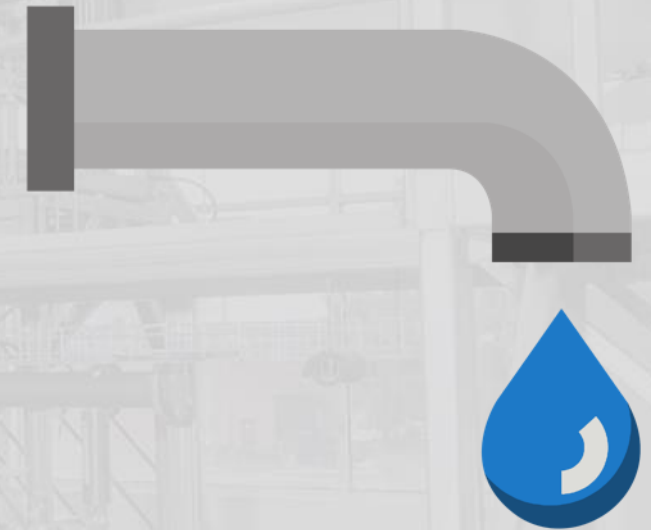
People, Planet, Profit : Not Just Talk



- 77,366 kg CO2 Saved
- 80% savings over HPLC
- Equivalent to 3,533 new trees



- 728,503 MJ Saved
- 83% savings over HPLC
- Equivalent to 5,325 homes heated for 1 day



- 122,841 kg Water Saved
- 90% reduction of Process Mass Intensity
- Equivalent to 5,173 people's daily water needs

CO2 : Cleaner, Safer, Cheaper and No Dry-Down Heat Required



Non-toxic
Pure, Stable



Non-flammable



**Reclaimed from
Industrial plants**



Fast



Recyclable
Minimizes waste



Sustainable
Minimizes energy use

Thar Process SuperFast™ Extraction Systems

Systems Available:

- SuperFast™ **2x9** up to 60kg
- SuperFast™ **2x25** up to 120kg
- SuperFast™ **2x120** up to 480kg
- SuperFast™ **2x360** up to 1,2 ton
- SuperFast™ **2x720** up to 2,2 ton
- SuperFast™ **2x1650** up to 5 ton



2x1650 L SuperFast™ Extraction System

Now available with WinterFlow™ In-line Winterization technology!

SuperFast™ 2x25L

Applications/Details:

- Fragrance / Essential Oils / Cannabis
- 10 kg input of Decarbed Biomass
- 5kg input of Non-Decarbed Biomass
- 20-minute terpene run (low pressure to trap)
- 1: 40 min extraction run @ 85% oil extracted
- 2.5 kg/min CO2 “mass flow rate” (Coriolis mass flow meter included)
- Co-Solvent Optional (100 and 250 ml/min)

Daily 24-hour Extraction Capacity:

Up to 120 kg (Decarboxylated)

Up to 60 kg (Non-Decarboxylated)



4 to 5 Ton per Day Multi-Purpose Extraction System

- Hops & Hemp
- Oil Seeds, Spices, Food Colors, Dyeing
- De-fatting Barley, Nuts, DHA
- Astaxanthin, Chrysanthemum, Rosemary



Thar Process Isolator™ SFC Series

Isolator SFC™ 10X

Up to 4 kg of purified input material/day

Isolator SFC™ 22X

Up to 10 kg of purified input material/day

Isolator SFC™ 60

Up to 80 kg of purified input material/day

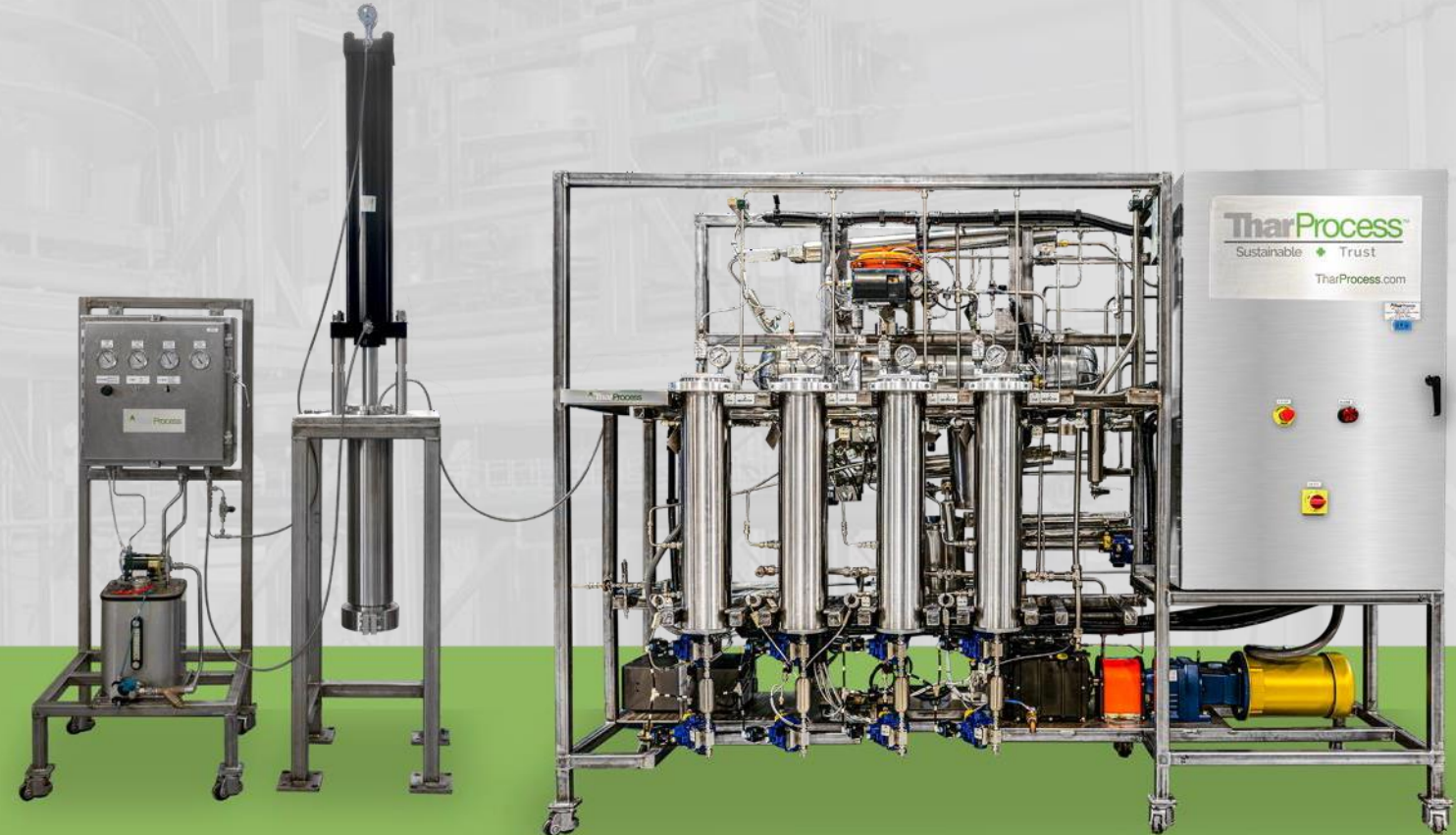


**Purification · Concentration
Isolation · Remediation**

Isolator SFC™ 10X

Applications:

- Cannabis Labs
- Pre-Clinical Trials
- Clinical Trial Quantities
- Chiral Separations
- Impurities Isolation
- Natural Products IND Dev
- Installations in EU and USA



**Daily Purification
Capacity:**

Up to 4 kg

Isolator SFC™ 22X

Applications:

- Chiral Separations
- Impurities Isolation
- Natural Products IND Dev
- Remediation of Pesticides/Fungicides and THC from Hemp
- Pharmaceutical API Production (Chiral)

**Daily Purification
Capacity:**

Up to 10 kg



Isolator SFC™ 60

Applications:

- Remediation of Pesticides/Fungicides and THC from Hemp
- Pharmaceutical API Production (Chiral)
- Two SFC 60 cm installed in the USA
- 1 Custom SFC 40cm installed in Malaysia for Palm Oil (tocotrienols / tocopherols)

Daily Purification

Capacity:

Up to 100 kg



Continue the Conversation

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